

REMARKS

In the Office Action dated December 1, 2008, claims 1 and 3-6 have been rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No.: 6,143,405 to Palmgren ("Palmgren") in view of U.S. Patent No.: 4,422,917 to Hayfield ("Hayfield"). The rejection has been made final.

In view of the above, Applicants respectfully submit that a *prima facie* case of obviousness has not been set forth. First, the above cited combination fails to teach or suggest the invention as presently claimed. Neither Palmgren nor Hayfield disclose, teach or suggest a synthetic fiber sheet where one face of the sheet is coated. For example, Palmgren just discloses particles or fibers being coated. *See* Palmgren at column 8, lines 2-9 and at column 10, lines 32-42. Applicants fail to see where in Palmgren is a synthetic fiber sheet disclosed, taught or suggested. Likewise, there is no disclosure in Hayfield of a synthetic fiber sheet much less fibers.

The Office Action also fails to specify how one skilled in the art would be motivated to use a synthetic fiber sheet as presently claimed when Palmgren discloses only particles and fibers. Applicants point out that there must be some nexus for one skilled in the art to use a synthetic fiber sheet as presently claimed instead of the particles/fibers of Palmgren. However, neither Palmgren nor Hayfield provide any such nexus for one skilled in the art to use a synthetic fiber sheet as presently claimed. Thus, Applicants do not see how a *prima facie* case of obviousness has been set forth when no such nexus is provided.

Second, Applicants fail to see how the combination of Palmgren and Hayfield provide one skilled in the art with a reasonable expectation of success in achieving Applicants' claimed invention. Hayfield discloses exposing substrates to high temperatures exceeding 1000°C. *See*, e.g., Hayfield at column 3, lines 8-13. However, a synthetic fiber sheet as presently claimed (as

well as the synthetic fibers of Palmgren) would thermally degrade upon exposure to these extreme temperatures. Applicants respectfully point out that a *prima facie* case of obviousness *post-KSR* still requires the combined prior art to provide a reasonable expectation of success. See § 2143.02 of the MPEP. If the synthetic fibers of Palmgren will decompose with the vapor deposition process of Hayfield due to the extreme temperatures, then how can there be reasonable expectation of success in achieving Applicants' claimed invention? The clear answer is there is none.

Third, Applicants fail to see how the Office Action provides an sufficient rationale as to why one skilled in the art would be motivated to make the above-cited combination. The Office Action merely recites:

It would have been obvious to one skilled in the art to produce a mixture of titanium oxides having a desired conductivity, as in Palmgren, by selecting from the materials of Hayfield a composition having such a conductivity and introducing suitable amounts of oxygen to produce the desired stoichiometry.

See Office Action at page 4.

However, the above rationale fails to specify why one skilled in the art would be motivated to make the combination in the first place. The above rationale only describes the advantages of the combination once the combination has been made, which is merely a "hindsight analysis."

In view of the above, a *prima facie* case of obviousness has not been set forth. Withdrawal of the rejections is respectfully requested.

Applicants do not believe that any fees are due with this response. However, if any additional fees are due, please charge such sums to our Deposit Account, 50-1145.

Respectfully submitted,



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